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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,218	07/19/2002	Peter Cole Goodwin	131279.1016	9610
60148 7590 06/19/2007 GARDERE / JAMES HARDIE GARDERE WYNNE SEWELL, LLP 1601 ELM STREET SUITE 3000 DALLAS, TX 75201			EXAMINER MARCANTONI, PAUL D	
			ART UNIT 1755	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/070,218	Applicant(s) GOODWIN ET AL.	
	Examiner Paul Marcantoni	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 14-20 and 22 is/are pending in the application.
- 4a) Of the above claim(s) 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12, 14-19 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's arguments filed 5/9/07 have been fully considered but they are not persuasive.

Shah et al. (US Patent No. 5,891,374)-

This reference is generally an excellent reference with respect to applicants' instantly claimed invention and also cited in applicants' specification. However, it is not applicable to their claimed invention even though it teaches sulfonated dispersion agent (col.7, lines 49-55), reinforcing fibers (col.2, lines 47-51), and hydroxypropylmethylcellulose (HPMC) binder (col.7, line 31). The reason this reference is not applicable in a prior art rejection is because it teaches an amount of binder such as HPMC of about 0.01 which falls below the required amount of viscosity enhancing agents (such as HPMC also claimed by applicants) of 0.3% by wt. of cement which is the minimum amount needed to meet applicants' claims.

Provisional Obviousness Type Double Patenting (Withdrawn):

The Provisional ODP over US Patent Publication 2005/0045067 A1 (10/960,150 Naji et al.) has been *withdrawn* because it does not teach the presence of reinforcing fibers. Reinforcing fibers are not common in extruded products and as applicants acknowledge on the first page of their specification, "extrusion of fibre cement products has been performed on a limited basis but has a number of difficulties which have reduced its commercial viability". Thus, adding fibers to extruded products is not commonly done because of prior difficulties doing so.

Non-Elected Claim 20:

The following was stated in the previous office action:

While claim 20 is non-elected, the term *acrylic based* polymers is indefinite. The applicants state they can amend their claim to --polymer comprising at least one acrylic monomer--- to replace acrylic based monomer. The examiner will not agree to this change as it could be construed as a new matter addition. However, should applicants state for the record that by acrylic based monomer they mean exactly ---a polymer comprising at least one monomer--- (to resolve any indefiniteness by a future review) the examiner will withdraw the indefiniteness rejection over "acrylic based" because then applicants would have clearly defined on record what they mean by that those terms.

The applicants will consider they would be willing to amend the claim to a polymer comprising at least one monomer. However, this is not what was suggested to do by the examiner. Applicants only have to state that this is what is meant by the term. If that is what is meant, please state so and the rejection will be promptly withdrawn. Nevertheless, claim 20 is still a non-elected claim so this would be resolved after resolution of the other issues in this application for the elected claims. No further discussion on this non-elected claim will be made until the active elected claims issues are resolved.

35 USC 102 and 103:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

35 USC 102(b)

Claims 12, 14-19, and 22 are anticipated under 35 USC 102(b) over Valore '231, or Rirsch et al. '557, or Sobolev et al. '289 B2.

35 USC 103

Claims 12, 14-19, and 22 are unpatentable under 35 USC 103(a) over Valore '231, or Rirsch et al. '557, or Sobolev et al. '289 B2 alone or in view of Hayakawa et al. '086, Downing et al. '199.

Note1: Bobrowski et al. 145, Jungk '505, or Beyn '380 have been withdrawn from the 103 rejection.

Note 2: For both rejections under 35 USC 102 and 103, the examiner removed references from these rejections that did not teach a reinforcing fiber (now required by applicants' claims).

Valore '231 teaches a composition comprising cement, superplasticizer (e.g. sulfonated melamine formaldehyde-see col.3, lines40-42), thickeners such as cellulose gums guar gum, clays (col.4, last paragraph), and fly ash (claim 9 in col.11). The amounts of superplasticizer/water reducer (synonymous) are 0.2 to 2 wt% and the amount of thickener is 0.01 to 2 wt% (col.7, lines 45-55). Valore thus anticipates applicants' claims. Even if not anticipated, overlapping ranges of amounts would have been prima facie obvious to one of ordinary skill in the art.

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Rirsch et al. '557 teach a composition comprising cement, cornmix SP2 (melamine formaldehyde sulfonate-col.8, lines 40-50), fibers including PVA fibers which thus also read upon viscosity enhancer (col.6, line 46), aggregate (col.5, lines 25-30), and acrylic polymers and copolymers which h also can read upon viscosity enhancer (col.10, lines 53-60). Even if not anticipated, overlapping ranges of amounts would have been prima facie obvious to one of ordinary skill in the art.

Sobolev et al. (US 6,645,289 B2) also appears to teach a cement composition comprising sulfonated dispersant (sulfonated melamine formaldehyde-col.2, line 52), and water soluble polymer such as cellulose, acrylic acid copolymers, polyvinyl alcohol, etc. (see col.3, lines 25-40) and aggregate (col.5, first paragraph) in overlapping amounts. Sobolev et al. further teach this composition has excellent workability and pumpability and can undergo extrusion (see col.5, lines 45-50 and lines 60-65). Even if not anticipated, overlapping ranges of amounts would have been prima facie obvious to one of ordinary skill in the art.

Hayakawa et al. '086 has been combined with the primary references to show that it is conventional in the art to add pulp fiber and silica or other aggregate to extrudable compositions (col.4, lines 9-14).

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Downing et al. '199 teaches that dispersing agents are the same as plasticizer, superplasticizers, or water reducing aids or agents (col.1, last line and col.2, lines 1-2). Downing teaches that these components are known to be added to cement compositions to improve dispersability and ultimately extrusion (col.2, lines 1-24).

37 CFR 1.132 Declaration-Mr. Jiang:

Mr. Jiang has shown to be an expert in the art by his submission in this declaration. Mr. Jiang argues that the prior art does not teach extrudable fiber reinforced cement formulations. It is noted that even if the prior art (e.g. Valore-note applicants did not appear to address this reference) does not teach extrudability of the mixture, this is an intended use. The new use (extrusion) of a known composition is not a patentable distinction. Further, the same composition even if extrusion is not taught would have been expected to have and possess the same properties. Thus if the prior art such as Valore teaches the same composition it would have been expected by one of ordinary skill in the art to also be *extrudable*. The following can be found in MPEP 2100:

COMPOSITION CLAIMS — IF THE COMPOSITION IS PHYSICALLY THE SAME, IT MUST HAVE THE SAME PROPERTIES:

"Products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) (Applicant argued that the claimed composition was a pressure sensitive adhesive containing a tacky polymer while the product of the reference was hard and abrasion resistant. "The Board correctly found that the virtual identity of monomers and procedures sufficed to support a prima facie case of unpatentability of Spada's polymer latexes for lack of novelty.").

Thus, even if the prior art has the same composition as applicants' claimed composition but is silent regarding extrudability it too should also be extrudable. The applicants are reminded that they are not claiming a "method of extruding" which would give the extrudability weight but an extrudable composition. The extrudability is the intended use or property resulting. The same composition would lead to the same properties including physical properties such as extrudability.

The applicants should also note that they were not from the beginning of prosecution requiring the inclusion of reinforcing fibers in their extrudable composition *in their claims*. This latest amendment is the first time reinforcing fibers were required as opposed to an optional ingredient that is part of applicants' instantly claimed composition so they cannot argue as if this feature or limitation was *always* present (ie from the beginning of prosecution). It was not.

The applicants argue regarding water content variations and whether or not it is extrudable. The examiner never brought up any other point other than water is needed to make the composition extrudable. The applicants did now add water as a new limitation to claim 1 because water is required for extrusion.

The examiner will limit his comments regarding references to only those still pending in the above rejection (the other references were removed from the rejection).

Rirsch et al. '557 :

Mr. Jiang argues that Rirsch et al. '557 does not teach or even suggest the claimed invention because they allege the polymers taught by Rirsch are clearly not

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viscosity enhancers as one of ordinary skill in the art would be aware. Applicants further state, "in fact, they are specifically chosen to bring increased strength and durability (col.10, lines 51-52). Applicants further state that Rirsch asserts at col.8, lines 47-54 that (both) the dispersion agent and polymer lattices... reduce the viscosity of the formulation and does not suggest their invention. The examiner disagrees. Rirsch teaches an extrudable composition with the same components in the same amounts as claimed by applicants for their claimed invention. Rirsch teaches adding melamine formaldehyde sulfonate superplasticizer (same as dispersant) in column 8, lines 40-50; fibers such as polyvinyl alcohol fibers (col.6, line 46); aggregates such as sand which is a silica material (see col.5, line 6); and acrylic polymers and copolymers (col.10, lines 53-60). Note that the Rirsch does teach "acrylic based polymers" and thus meets the limitation of a viscosity enhancing agent especially in line with withdrawn claim 20. It is noted that even though this claim is withdrawn applicants independent claim 12 is still inclusive of "acrylic based polymers". Applicant did not limit their independent claim 12 to the cellulose VEA's of claim 19 nor is it proper to read limitations of dependent claims into the independent claims.

It is further noted that because the viscosity "enhancers" are the same as applicants (ie acrylic based polymers in withdrawn claim 20) the properties of applicants composition and Rirsch would have been expected to be the same. Mr. Jiang (and thus applicants) further argues that the combination of dispersing agent and polymer lattice reduces the viscosity of the formulation. In rebuttal, it would follow that applicants own alleged synergistic combination of VEA and dispersing agent DA would

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also reduce the viscosity because they too combine a dispersing agent and a VEA such as an “acrylic based polymer” and would have also expected to obtain these properties in the mixture of these two components.

It should also be pointed out that applicants claim a viscosity enhancing agent. Enhancing can mean increasing or decreasing depending upon the application. Applicants do not specifically claim viscosity increasing agent.

Sobolev et al. '289 :

Mr. Jiang states that Sobolev refers “only in passing” to extrusion. If he does so does refer to it (even if by one word) does he then not teach that his composition is extrudable? It is the examiner’s position that a reference is good for all that it realistically teaches and Sobolev teaches his composition is extrudable. The examiner will not ignore the teaching of this reference.

Mr. Jiang then states that there is no *clear enablement* of extrusion and thus applicants’ claimed invention is not suggested by Sobolev. In rebuttal, the examiner is not clear as to what applicants mean by “clear” enablement and is not familiar with enablement being referred to in this manner. Either a patent disclosure is enabling or it is not enabling. Nevertheless, Sobolev et al. teach their composition can undergo extrusion (col.5, line 65) which thus supports enablement of Sobolev to utilize extrusion for his cement composition.

Bobrowski '145 (withdrawn)

Bobrowski has been withdrawn from the 103 rejection above. The examiner agrees he does not teach extrusion. However, all remaining primary references teach

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adding a sulfonate dispersant which is the purpose for the use of this reference. It is thus withdrawn from the combination rejection under 35 USC 103.

Same Composition-Same Properties:

Mr. Jiang opines that the examiner is incorrect in his assertion wherein he states on pages 10 and 11 of his previous 11/9/06 office action:

The prior art teaches the same components (viscosity enhancer and dispersing agent) in the same amounts and the properties resulting (whether extrudability, fluidity, flowability, pumpability, etc.) would have been the same.

Mr. Jiang further argues that fluidity, pumpability, and flowability are totally at odds with the claimed invention which relates to an extrudable composition. In response, it would appear Mr. Jiang misinterprets the examiner's position. The examiner does not disagree fluidity, pumpability, flowability, and extrusion are not synonymous properties. The examiner again re-asserts his position that if the prior art (even if it does not teach extrusion) teaches the same exact composition of components in the same amounts, the properties resulting would have been expected to be the same. The prior art references remaining in the art rejections do teach the same composition (all of them teach extrudability except Valore) and would have been expected to possess the same properties including extrusion. Even if the other prior art references did not teach it was extrudable, if it contains the same components, it would have the same properties. Applicants are reminded that they are to compare their claimed composition which can be inclusive of other components outside the scope of their own extrudable composition. "Comprising leaves the claim open for the inclusion of

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unspecified ingredients even in major amounts. Ex parte Davis et al., 80 USPQ 448 (PTO Bd of App.1948).

Mr. Jiang also states that there is on suggestion or teaching of the surprising synergy between their claimed VEA and sulphonated dispersing agent DA. In rebuttal, the prior art teaches both components and thus does possess this synergy.

Mr. Jiang again mis-interprets the examiner because the examiner never stated anywhere that a composition that is flowable, pourable, slurried, etc. also must be suitable for extrusion processing. The examiner states again that his main point is that the prior art in his 102 and 103 rejections contain the same composition in the same amounts as claimed by applicants and thus would have been expected to have the same properties (including extrusion). Note that the examiner lists pumpability, flowability, etc. but does not state they must be all present as properties.

Mr. Jiang appears to allude to possibly done actual testing regarding the prior art

On the last page of his 132 declaration and states that he was not able to extrude the prior art compositions. In rebuttal, the applicants did not present this data so the examiner cannot comment on these allegations of differences over the prior art. The examiner maintains that the references teach the same components in overlapping amounts (thus the same composition) and the properties resulting such as extrusion would have been expected by one of ordinary skill in the art to be the same. This 132 declaration has been fully reviewed and thus has not been found convincing.

Response

Provsional ODP:

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Again, the ODP has been withdrawn because the ODP Naji reference did not teach reinforcing fibers.

The following below was the response to arguments in the previous office action:

35 USC 103:

The applicants argue that Fujio (JP 06-127992) does not teach their water soluble cellulose ether polymers. It would appear that the cellulose powder is still a polymeric material. Further, even if the specific cellulose ether polymers (MC, HMC, or CMC) are not mentioned, applicants are not claiming any of these specific polymers in claim 1. It is improper to argue a limitation not even present in the claim and claim 1 merely states a viscosity enhancing additive of which cellulose powder is one and overlaps applicants amounts. While it is true that the claims may be read in light of the specification, it is improper to read the limitations of the specification into the claims. In re Yamato, 222 USPQ 93; In re Wilson, 149 USPQ 523; Graver Tank v. Linde Air Products Co. 80 USPQ 451 (Supreme Court). The abstract also teaches a water reducing agent including sulfonates that are dispersing agents in applicants' amounts and teaches that this composition is extrudable. It thus meets the applicants' claims.

The applicants state that Sobolev et al. '289 B2 does not relate to extrusion of cement compositions. The examiner disagrees. Applicants are referred to column 5, line 65 which teaches that it *can* be used in an extrusion process.

Response to Prior Art Rejection Applicant Remarks:

All arguments will be limited to remaining references. Removed or withdrawn references were done so because applicants' now amended their claim requiring reinforcing fibers in their extruded material. All references not teaching reinforcing fibers were withdrawn. *Wada et al.* '771 has been withdrawn not because they do not teach reinforcing fiber (they do) but because they do not specifically teach a *sulfonated* dispersion agent as required by applicants' claim 1 which results in their synergy with the viscosity enhancing agent. *Fujio et al.* (Kao Corporation-JP 06-127992) has been

withdrawn from the 102 and 103 art rejections because they do not teach the applicants' claimed range of sulphonated dispersion agent. Applicants teach an amount of sulphonated dispersion agent of 0.05 to 5% by weight of cement. Fujio (JP '992) teaches 0.6% as the closest value for water reducing agent (or dispersing agent which is synonymous) and thus outside applicants' claimed range.

It would appear that some arguments of applicants' counsel do parallel that of Mr. Jiang from his 132 declaration and those will not be addressed as they were already addressed above responding to this declaration. However, new points of argument will still be addressed as follows:

The applicants (counsel) argues on page 9 of his response that Hayakawa cannot be combined with their claimed composition because it does not teach or suggest the inventive concept of claimed invention and does not render the claimed invention obvious. In rebuttal, the examiner disagrees. The applicants' statements would indicate that a combination rejection could never be proper. If applicants mean by *inventive concept* the same composition, there would be no reason to make a combination rejection and only a rejection over a single reference could be made. Hayakawa et al. is properly combinable with applicants' extrudable cement composition because it also teaches an extrudable cement composition and teaches that adding aggregate such as silica sand to extrudable cement is conventional, old, and obvious to one of ordinary skill in the art (see col.4, lines 9-14). It would have been an obvious design choice to add an aggregate such as sand to the extrudable composition of the primary references because it is old and known to do so according to Hayakawa.

The applicants address Downing and the examiner only wished to clarify the record so that those reviewing it understand that plasticizers, superplasticizers, and water reducing agents are essentially synonymous terms. Downing does teach the concept of applicants invention because he teaches that his cement composition is extrudable. The secondary references are not required to teach the every limitation of the applicants' invention. Again, if that were true, combination rejections would not be permissible. The only purpose for the use of this reference in the rejection is to teach that plasticizers, superplasticizers, and water reducing agent all have the same meaning for those reviewing this application and to remove any potential confusion.

Bobrowski has been withdrawn. No comment is necessary now on this reference. It is the examiner's position that he has fully addressed applicants' remarks and the 132 declaration and the finality of this office action is now proper.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Marcantoni
Primary Examiner
Art Unit 1755